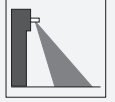


## Active infrared scanner

### AIR30/32-UP-2483/B



- Single-beam light scanner
- Can be used to monitor both main and ancillary closing edges
- Closing edge safety on revolving doors and carousel doors
- Accurate beam alignment thanks to finely bundled light beam
- Flush-mounted version with front cover, black
- DC voltage version

Single-beam light scanners with finely bundled light beam for monitoring main and ancillary closing edges



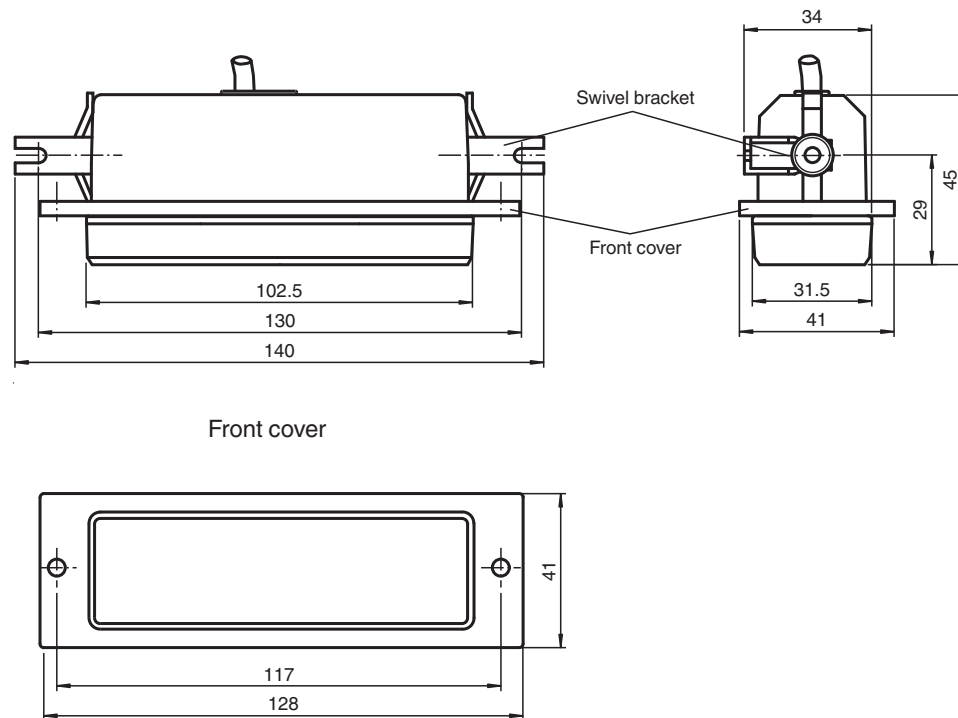
#### Function

AIR30 is a series of active infrared scanners with excellent optical properties for monitoring closing edges in a wide range of door systems. The diverse range of housings and mounting options allow the devices to be adapted to suit a whole host of mounting conditions.

#### Application

- Monitoring closing edges and crushing points on revolving doors and carousel doors
- Door monitoring system in local public transportation

## Dimensions



Front cover

## Technical Data

### General specifications

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Detection range min.              | 0 ... 1870 mm preset              |
| Light source                      | IREd                              |
| Light type                        | modulated infrared light          |
| Black-white difference (6 %/90 %) | ≤ 400 mm at a distance of 2000 mm |
| Transmitter frequency             | 1800 Hz                           |
| Operating mode                    | Background evaluation             |
| Diameter of the light spot        | 50 mm at 2000 mm sensor range     |
| Opening angle                     | approx. 1.4 °                     |
| Accessories provided              | Swivel bracket, Mounting bracket  |

### Functional safety related parameters

|                                |        |
|--------------------------------|--------|
| MTTF <sub>d</sub>              | 1050 a |
| Mission Time (T <sub>M</sub> ) | 20 a   |
| Diagnostic Coverage (DC)       | 90 %   |

### Indicators/operating means

|                    |  |
|--------------------|--|
| Function indicator | LED red: lights up when output is active                   |
| Control elements   | Sensing range adjuster, light-on/dark-on changeover switch |
| Factory setting    | dark-on  |

### Electrical specifications

|                        |                |                |
|------------------------|----------------|----------------|
| Operating voltage      | U <sub>B</sub> | 10 ... 30 V DC |
| No-load supply current | I <sub>0</sub> | 100 mA         |

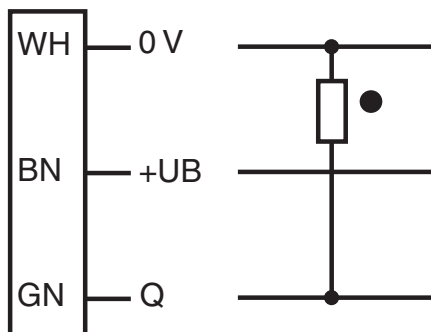
### Output

## Technical Data

|                                   |                  |   |
|-----------------------------------|------------------|---|
| Switching type                    |                  | light/dark on, switchable   |
| Signal output                     |                  | 1 PNP output, short-circuit protected, reverse polarity protected, open collector |
| Switching voltage                 |                  | 30 V DC   |
| Switching current                 |                  | ≤ 200 mA  |
| Response time                     |                  | 50 ms   |
| De-energized delay                | $t_{\text{off}}$ | approx. 200 ms  |
| <b>Standard conformity</b>        |                  |   |
| Standards                         |                  | EN 60947-5-2  |
| Standards 2                       |                  | EN 61000-6-2 without EN 61000-4-5, EN 61000-4-11                                  |
| Standards 3                       |                  | EN 61000-6-3  |
| <b>Approvals and certificates</b> |                  |   |
| CCC approval                      |                  | CCC approval / marking not required for products rated ≤36 V                      |
| <b>Ambient conditions</b>         |                  |   |
| Ambient temperature               |                  | -20 ... 70 °C (-4 ... 158 °F)   |
| Storage temperature               |                  | -40 ... 70 °C (-40 ... 158 °F)  |
| <b>Mechanical specifications</b>  |                  |   |
| Degree of protection              |                  | IP52  |
| Connection                        |                  | 2 m fixed cable   |
| Material                          |                  |   |
| Housing                           |                  | plastic   |
| Optical face                      |                  | Luran®  |
| Mass                              |                  | 40 g  |

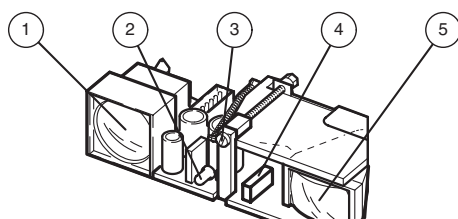
## Connection Assignment

Option:



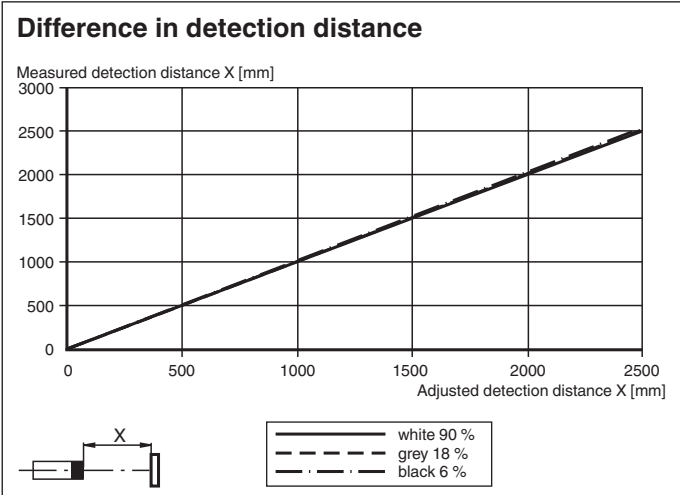
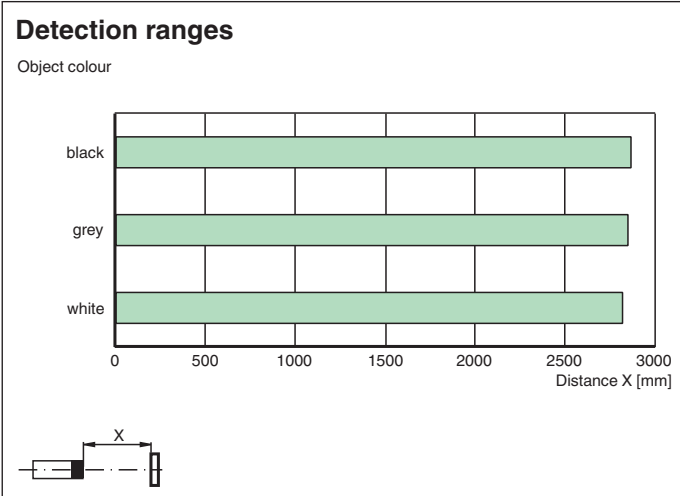
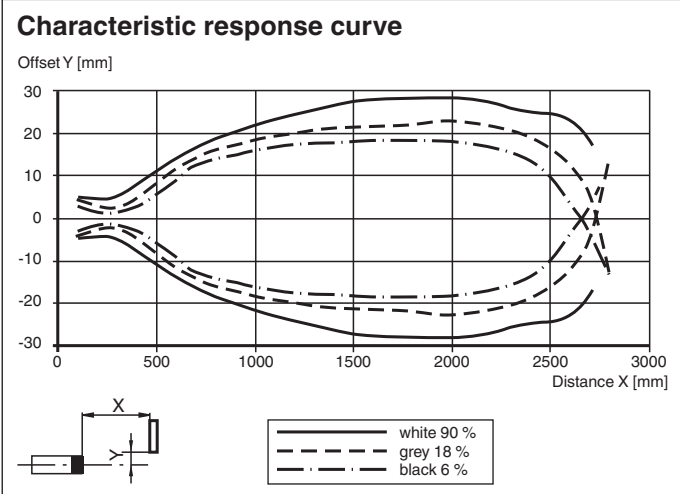
○ = Light on  
● = Dark on

## Assembly



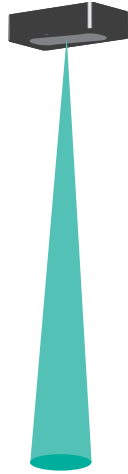
|   |                          |
|---|--------------------------|
| 1 | Transmitter              |
| 2 | Indication-LED           |
| 3 | Detection range adjuster |
| 4 | Light / Dark switch      |
| 5 | Receiver                 |

**Characteristic Curve**






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## Application



## Accessories

|  |                             |  |
|--|-----------------------------|--|
|   | <b>UP-Einbaurahmen</b>      | Mounting frame for sensors in the AIR30 and PROSCAN series |
|   | <b>Flush Mounting AIR30</b> | Installation cover for AIR30 series sensors                |
|  | <b>Wetterhaube AIR30</b>    | Weather hood for series AIR30                              |

**Function Principle**

Active infrared scanners detect people and objects using short-wave infrared radiation according to the triangulation principle. A switch signal is tripped if the infrared beam emitted is reflected by an object within the specified sensing range. Where background evaluation is activated, the background (e.g. ground) is used as a reflector. This allows reflective or shiny objects, such as vehicles and objects located close to the surface, to be detected reliably and in full.

**Operating principle  
Background evaluation**

